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ABSTRACT

This booklet is intended for nursing education teachers, and provides them with the product and process that was successfully used to develop education learning packets. The booklet contains six self-paced modules which aid the student in the assessment of the patient and which have been culled by one teacher from a larger bank of material organized by Computerized Information System for Nursing Education (CISNE). The six modules are (1) Principles of Observation, (2) the Physical Examination, (3) Diagnostic Tests, (4) Vital Signs, (5) Blood Pressure, and (6) Recording and Reporting. Each of these six modules includes a stated purpose, a vocabulary list, behavioral objectives, evaluation guidelines, and a study guide. Provisions are made for student evaluation in each module. (BD)

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TITLE

APPLYING MASTERY LEARNING IN THE CLASSROOM

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Objectives of the Workshop

To explain the philosophy behind fail-safe educational programs wherein each learner proceeds at an individualized self-paced rate.

To provide concrete examples of how modules can be used to give students varying degrees and rates of success.

To provide an example of a module constructed during a one day workshop.

Objectives of This Publication

To provide to teachers unable to attend the workshop the product and process that was successfully used to develop fail-safe education learning packets.

Important Note

So many teachers contributed to this product that it is impossible to name any one individual as the sole author. A special thanks is given to all of those who participated in making the workshop both its products and process such a success.

SELF-PACED MODULES

The following modules of Cluster 4 (ASSESSMENT OF THE PATIENT) are for student consumption.

CLUSTER 4 has been culled by one teacher from a larger bank of material called SUPER-COURSE by CISNE (COMPUTERIZED INFORMATION SYSTEM FOR NURSING EDUCATION).

ASSESSMENT OF THE PATIENT

CLUSTER 4

Module 4 - A: Principles of Observation
4 - B: The Physical Examination
4 - C: Diagnostic Tests
4 - D: Vital Signs
4 - E: Blood Pressure
4 - F: Recording and Reporting

The student may not move on to the next cluster before achieving a score of 80% on the objective written test and a satisfactory demonstration of the nursing skills for the laboratory assistant.

MODULE 4 - A

PRINCIPLES OF OBSERVATION

A. PURPOSE: Upon completion of this unit the student will be able to utilize the principles of observation to gain information about the status of the patient's health; to describe his observations with accuracy; to avoid the pitfall of repetition and vague meaningless notes; to report observations with distinction and clarity.

B. VOCABULARY:

1. symptom: any disorder of appearance, sensation or function.
2. subjective symptom: those described by the patient (e.g. headache).
3. objective symptom: those noted by the observer (e.g. rash).
4. consitutional symptom: produced by the effect of the disease on the whole body (e.g. fever).
5. local symptom: noted in some special area (e.g. swollen jaw).
6. prodromal symptom: precedes the development of the disease (e.g. runny nose precedes measles).
7. cardinal symptoms: temperature, pulse, respiration,
8. syndrome: a series or group of symptoms associated with a disease and forming together a clinical picture of the disease (e.g. Down's Syndrome).
9. presenting symptoms: those which cause the patient to seek medical attention.
10. incipient: beginning or commencing.
11. asymptomatic: without symptoms.
12. edema: retention of fluid in the tissues.
13. sign: objective symptom detected through special examination.

C. BEHAVIORAL OBJECTIVES	D. ACTIVITIES
1. Identify the four senses most commonly used for observation.	1. Lecture Kozier & DuGas, op. cit. pgs. 160-164. Seedor, Marie M., Aids to Diagnosis, Teachers College Press, Columbia University, (New York: 1964), pg. 237.
2. List five observations the nurse should make with regard to the patient's general appearance.	2. Lecture. Academic conference. Seedor, op. cit. pg. 241. Fuerst & Wolff, op. cit. pgs. 149-151; 152. Legs slides #108-117. Barbata, Jensen, & Patterson, op. cit. pgs. 19-20.
3. List five observations the nurse should make in order to assess the behavior of the patient.	3. Lecture Academic conference. Seedor, op. cit. pg. 250 Fuerst & Wolff, op. cit. pg.149.

BEHAVIORAL OBJECTIVES	ACTIVITIES
4. Describe the symptom of pain using terms which are clear, precise and specific.	5. Lecture. Academic conference. Seedor, op. cit., pg. 250. Fuerst & Wolff, op. cit. pg. 153. Kozier & DuGas, op. cit. pgs.326-328. Fiolo & Edge, op. cit. pg. 100. RUBINO & WHITE, op cit. pg.129-130; 124
5. What observations should the nurse make with regard to body excretions?	6. Lecture. Academic conference. Seedor, op. cit. ph. 255. Kozier & DuGas, op. cit. pgs. 161-164. Fuerst & Wolff, op. cit. pg. 153.
6. Given descriptions of patient's behavior identify which are described factually and which are opinion.	7. Lecture. Academic conference. Legs slides #78-82 Fuerst & Wolff, op. cit. pgs. 147-149. Audio-cassette, "Reporting" -refer to study guide when listening. Study guide 4 - A.
7. Given a list of words used to clearly describe signs and symptoms differentiate between those which are objective terms and those which are subjective terms.	8. Study Guide 4 - A.

E. EVALUATION:
1. Objective written test based on behavioral objectives 1-7.
2. Measurement of skills:
   a. Clinical performance based on anecdotal records and written observation of two patients you care for.

STUDY GUIDE 4 - A

1. View slides "Fact or Opinion" - Legs slides # 78-82
   a. Look at the various observations and write a factual description of the scene; then write your opinion of the scene.
   b. Define subjective and objective. How do they apply to the terms factual and personal opinion?
   c. Look at the following samples of nurses charting. Which is subjective? Which is objective?
      He is depressed.
      She walked to the door and back.
      He sat in a chair for two hours without complaining of fatigue.
      He tired easily.

   d. Why is differentiation between fact and opinion so important when describing patients?

2. View slides on "Observation" - Legs slides # 108-117.
   a. How does skin and hair appearance vary from one age group to another?
   b. What do you look for as you meet a patient or another person?
   c. List your observations. Be clear, concise and objective.

3. Terminology for distinct and clearly stated observations.
   a. Subjective:
      Pain: mild, severe, location or area
      character of pain: sharp, acute, dull, sudden, remittent, shifting, continuous, radiating, darting, burning, throbbing, stabbing, boring, gnawing, diffuse

      Sensations:
      itching, tingling, prickling, burning, numbness, throbbing, shivering, sensitiveness to light - to darkness, pressure, hunger, thirst, headache, dizziness, nausea, tinnitus, blurred vision, hot, cold, tired

      Emotions and feelings:
      fear, anxiety, apprehension, worry, distrust, happiness, comfort, discomfort, weakness, faintness

   b. Objective: (Symptoms to be noted in daily care of patient)

      Head and face:
      color: pale, flushed, cyanotic, jaundiced
      eyes: lids - red, swollen, heavy, drooping, spasms
      pupils - dilated, contracted, unequal
      secretions - character and quantity
      nose: secretions - character and quantity
      ears: discharge - character and quantity
      mouth: lips - color, dry and cracked, leisions, trembling or twitching
      breath: hot, fetid, sour, foul, odor
      teeth: natural or false
      tongue: moist, clean, normal color, dry, pale, furred, coated, enlarged

      Body:
      rash, contusions, wounds, scars, sores, red areas, warm, dry, cold, clammy, moist, abraisions, bruises, color, odor

      Extremities: hands - fingers - nails: color, texture, condition
      legs and feet - edema, color, texture, condition

Body excretions:

urine: color, odor, amount, clear or cloudy
feces: amount, color, consistency
vaginal discharge: color, quantity
incontinence: urine, feces, both

General condition:
appetite, restless, quiet, movements such as twitching, tremors, convulsions, spasms, irregular muscle movements, position, irritable, facial expression, ability to respond, apathy, confusion, talkative,

These are a few of the observations you should make in your daily care of patients. In Module 4 - F you will learn many more descriptive terms for reporting and recirding your observations.

MODULE 4 - B

THE PHYSICAL EXAMINATION

A. PURPOSE: Upon completion of this unit the student will understand why a physical examination is a routine part of the admission of a patient to the hospital; the nurse's role in the procedure and the value of a physical examination in teaching patients and their families.

B. VOCABULARY:

1. auscultation: listening to sounds within the body.
2. palpation: the act of feeling with the hands.
3. percussion: the act of tapping or striking a part.
4. diagnosis: the process of identifying a disease from its signs and symptoms.
5. prognosis: the probable outcome of a disease or illness.
6. inspection: to view or observe with the eyes.
7. scope: an instrument used to extend the range of vision or hearing.
8. opthal: eye.
9. ot: ear.
10. bronch; bronchus.
11. cyst: bladder.
12. itis: inflammation

C. BEHAVIORAL OBJECTIVES	D. ACTIVITIES
1. Upon notification that a patient will be admitted, prepare the unit for his arrival. ADMIT PATIENT.	1. Lecture. Academic conference. Wood, op. cit. pg. 556.
2. List, in order, the important steps the nurse should take when the patient arrives on the unit to admit him.	2. Lecture. Academic conference. Wood, op. cit. pgs. 557-561. Kozier & DuGas, op. cit. pgs. 35-41.
3. List the nurse's responsibilities in the physical examination.	3. Lecture. Academic conference. Seedor, op. cit. pg. 270. Fuerst & Wolff, op. cit. pgs. 170-172. Kozier & DuGas, op. cit. pgs. 179-180.
4. Identify the purposes of a physical examination.	4. Lecture. Academic conference. Seedor, op. cit. pg.264.
5. Give three reasons for draping a patient properly during the physical examination.	5. Lecture. Academic conference. Seedor, op. cit. pg. 273.
6. Describe the six positions used for a physical examination.	6. Lecture, Academic conference. Seedor, op. cit. pgs. 275-278.

BEHAVIORAL OBJECTIVES	ACTIVITIES
	6. continued Fuerst & Wolff, op. cit. pgs. 170-172.
7. Demonstrate draping a patient for the six positions used for a physical examination.	7. Laboratory demonstration and practice.
8. Describe the four methods by which the physician examines the various parts of the body.	8. Lecture. Academic conference. Seedor, op. cit. pg. 278. Fuerst & Wolff, op. cit. pg. 172.
9. Demonstrate the role of the nurse in assisting with a physical examination.	9. Trainex film strip "Assisting With a Physical Examination". Study Guide 4 - B. Laboratory practice.
10. Identify the most common sequence or routine used by the physician in examining the patient.	10. Lecture. Academic conference. Seedor, op. cit. pgs.284-285. Fuerst & Wolff, op. cit. pgs. 172-175.

E. EVALUATION:
1. Objective written test based on behavioral objectives 2-6; 8; 10.
2. Measurement of skills:
   1. Satisfactory return demonstration in college lab using critical requirements of objectives 1; 7; 9.
   2. Clinical performance based on anecdotal records and critical requirements.

STUDY GUIDE 4 - B

1. View the filmstrip "Assisting With a Physical Examination" and answer the following questions:
   a. What are the specific activities of the nurse?
   b. Why is the nurse doing these activities?
   c. Why does the physician do a complete physical examination?
   d. Why is the patient's history important?

2. Notice that when the nurse does something for the physician this benefits the patient.

3. Equipment FOR the physical examination:
   a. stethoscope
   b. flashlight
   c. sphygmomanometer
   d. flashlight
   e. otoscope
   f. opthalmoscope
   g. percussion hammer
   h. tongue depressor
   i. tissues
   j. gloves
   k. powder
   l. lubricant
   m. vaginal speculum

4. Nursing interview summary (according to hospital policy and form) will be similar to the following:
   Admission: via to Room Bed
   Present illness:
   TPR: BP: HT. WT.
   Brief past history:
   Medications and diet:
   Pain (describe):
   General appearance:
   Color:
   Quality Pulse:
   Quality resp.:
   Condition of skin:
   Physical and emotional behavior:
   Occupation:
   Dentures: Upper - Lower - Contact Lenses:
   Glasses: Prosthesis:
   Sleep habits:
   Bowel habits:
   Valuables: disposition:
   Drugs from home: disposition
   Allergies:
   Oriented to unit:
   Other
   Dr. _____ notified at _____.

CRITICAL REQUIREMENTS
ADMISSION OF A PATIENT

PREPARATION OF THE UNIT:

1. Adjust height of bed (low if patient is ambulatory; high if on stretcher).
2. Prepare environment:
   a. open bed
   b. adjust lights
   c. check temperature and ventilation.
3. Place gown on top of bed.
4. Assemble admitting equipment:
   a. urine specimen container
   b. sphygmomanometer
   c. stethoscope
   d. thermometer
   e. admission form according to hospital policy.

PATIENT'S ARRIVAL:

1. Greet patient and check identification band.
2. Introduce self.
3. Take patient to room.
4. Provide privacy.
5. Assist patient into gown (hospital or own).
6. Hang clothes neatly in closet or fold neatly for family to take home.
7. Nursing interview summary:
   a. nursing history
   b. temperature, pulse, respiration
   c. blood pressure
   d. weight and height
   e. observation assessment - objective
   f. elicit subjective symptoms from patient.
8. Explain hospital procedures:
   a. call signal
   b. television
   c. bed controls
9. Explain schedules and procedures:
   a. meals
   b. visiting
   c. laboratory examinations.
10. Obtain urine specimen.
11. Provide for safety:
    a. lower bed
    b. position siderails.
12. Leave patient comfortable.
13. Chart.

CRITICAL REQUIREMENTS

PHYSICAL EXAMINATION

PREPARATION FOR:

1. Prepare the patient:
   a. explain procedure to the patient.
   b. provide privacy.
   c. drape the patient.
2. Prepare equiment:
   a. collect necessary equipment
   b. make sure each item is in working order
   c. obtain necessary specimen containers and label.
3. Prepare environment:
   a. provide ventilation without drafts
   b. provide privacy
   c. place equipment for convenience of doctor.

DURING THE PROCEDURE:

1. Provide emotional support for the patient.
2. Provide privacy through proper draping while patient is maintaining a position.
3. Assist the doctor with equipment as necessary.
4. Observe patient.

AFTER THE PROCEDURE:

1. Provide for the patient's comfort and safety.
2. Send labeled specimens to laboratory.
3. Clean and dispose of equipment as necessary.

MODULE 4 - C

DIAGNOSTIC TESTS

A. PURPOSE: This unit is concerned with laboratory tests, which are another aid to the physician in making a diagnosis. The student must understand the diagnostic procedure if he is to prepare the patient for it both mentally and physically, assist the physician intelligently, collect specimens correctly and do certain specified tests himself.

B. VOCABULARY:

1. S&A: sugar and acetone.
2. CBC: complete blood count.
3. glyco: sugar.
4. glycosuria: sugar in the urine.
5. albuminuria: albumin in the urine.
6. sedimentation rate: measurement of the rate at which the red cells settle after blood is agitated and then allowed to stand.
7. erythrocyte: red blood cell.
8. plasma: liquid part of the blood.
9. RBC: red blood count.
10. WBC: white blood count.
11. leukocytes: white blood cells.
12. cyte: cell.
13. leuk: white.
14. leukopenia: decrease in white cell count.
15. differential count: a determination of the numbers of different kinds of leukocytes.
16. stool: feces.
17. blood chemistry tests: chemical analysis to determine the constituents of the blood.
18. BMR: basal metabolism rate.
19. UGI series: upper gastro-intestinal X-rays.
20. BE: barium enema.

C. BEHAVIORAL OBJECTIVES	D. ACTIVITIES
1. Given a list of various laboratory tests explain the purpose of each test.	1. Lecture. Academic conference. Garb, Solomon, Laboratory Tests in Common Use, Springer Publishing Co. Inc., (New York: 1971), pgs. 27-28; 129-131; 171 151-152; 195-197; 26; 178-181; 46-50; 25-26; 23-24; 192; 187-192; 182; 14-15. French, Ruth M., The Nurse's Guide to Diagnostic Procedures, McGraw-Hill Book Co., (New York 1971), pgs. 18-22; 29-32; 50-51 153-154; 66-67; 113-116; 146-15 239; 240; 262-2666; 268-269; 289-292. Barbata, Jensen, & Patterson, op. cit. pgs. 16-17.

BEHAVIORAL OBJECTIVES	ACTIVITIES
	1. continued. Bauer, Ackerman, and Toro, Bray's Clinical Laboratory Methods, The C.V. Mosby Co. (St. Louis:1968), pgs. 11-15. Seedor, op. cit. pg. 317; 324; 326; 331. Kozier & DuGas, op. cit. pgs. 276; 321-322.
2. List the general rules which the nurse must follow in collecting any specimen.	2. Lecture Academic conference. Seedor, op. cit. pg. 332.
3. Given a patient's chart locate the results of laboratory tests and select those which are not within the normal range.	3. Lecture. Academic conference. College laboratory. Clinical Laboratory. Study guide 4 - C.
4. Demonstrate the procedure for collecting the following specimens: voided urine (for routine urinalysis); urine from foley catheter; mid-stream or clean-catch urine; 24 hour urine collection; stool; sputum.	4. Wood, op. cit. pgs. 404-412; 449-450; 474-476. Brady - film loop "Clean Voided or Mid-stream Specimen" Laboratory demonstration.
5. Demonstrate the procedure for testing urine for sugar and acetone.	5. Wood, op. cit. pgs. 412-418. Laboratory demonstration.
6. Give two important measures to be taken when a patient may not have breakfast because of the requirements of a diagnostic test.	6. Lecture. Academic conference.

E. EVALUATION:
1. Objective written test based on behavioral objectives 1-3; 6.
2. Measurement of skills:
   a. Satisfactory return demonstration in college lab, using critical requirements, of objectives 4 and 5.
   b. Clinical performance based on anecdotal records and critical requirements.

NORMAL RANGE: All laboratory tests have, as a prerequisite to their proper interpretation, normal ranges. A range is necessary because of individual differences even among a normal population. In addition, there is no test which can be said to be so accurate that an absolute value is possible. The normal range establishes the area within which one may be confident in saying that no pathological condition exists.

URINE: color - pale yellow or straw colored
clear
odorless when voided
pH - 4.5-7.5
specific gravity - 1.010 - 1.025

RBC: (erythrocyte count) 4,500,000 to 5,000,000 per cubic millimeter blood

HEMOGLOBIN: 13.5 to 17.5 grams per 100cc. blood

WBC: 6,000 to 10,000 cubic millimeter blood

BLOOD SUGAR: 80-120 milligrams per 100 cc. blood in the fasting state (FBS)

CRITICAL REQUIREMENTS

COLLECTION OF SPECIMENS

ROUTINE URINE

1. Wash hands.
2. Obtain necessary equipment (bedpan or urinal, specimen container, specimen label, laboratory requistion slip).
3. Identify patient. Explain procedure.
4. Obtain specimen.
5. Pour urine into measuring pitcher, then into specimen container.
6. Put lid on, clean and dry outside of the container.
7. Label container with patient's name, room number, type of test.
8. Provide for patient's comfort and safety.
9. Wash equipment and return to proper place.
10. Take or send specimen with laboratory slip to the lab.
11. Chart.

24-HOUR URINE COLLECTION:

1. Identify patient. Explain procedure.
2. Obtain necessary equipment.
3. Post sign according to hospital policy.
4. Label collection jug appropriately.
5. Have patient void, discard specimen, record time.
6. Refrigerate collection jog according to hospital policy.
7. Transfer all urine to collection jug.
8. Have patient void approximately 5 minutes before completion of test.
9. Inform patient test is completed.
10. Take specimen immediately to laboratory with appropriate slip.
11. Remove written signs.
12. Chart.

MID-STREAM OR CLEAN-CATCH SPECIMEN COLLECTION:

1. Identify patient. Explain procedure.
2. Obtain necessary equipment and supplies. (specimen container, laboratory slip, label)
3. Wash hands.
4. Provide for patient's privacy.
5. Cleanse perineal area.
6. Assist patient to bathroom or offer bedpan.
7. Ask patient to void.
8. Ask patient to iterrupt voiding.
9. Collect specimen in appropriate container after interruption.
10. Assist patient to bed as necessary.
11. Provide for patient's comfort and safety.
12. Label specimen with appropriate information.
13. Send or take specimen to lab.
14. Chart.

SUGAR AND ACETONE TEST:

1. Wash hands.
2. Identify patient. Explain procedure.
3. Obtain specimen.
4. Perform test.
5. Read accurately the results of the test.
6. Record on chart in appropriate place and report results to medication nurs

COLLECTION OF STOOL SPECIMEN:

1. Collect appropriate equipment (two tongue blades, specimen container and li
   lid, paper towel, label, laboratory slip).
2. Wash hands.
3. Identify patient and explain procedure.
4. Offer bedpan (frequently).
5. Collect specimen.
6. Take specimen in covered bedpan to utility room.
7. Transfer, with tongue blade, at least one tablespoon of stool from bedpan
   to specimen container.
8. Put lid on container; wrap and discard tongue blade.
9. Empty, clean, and return bedpan to patients unit.
10. Take specimen to lab immediately.
11. Wash hands.
12. Chart.

COLLECTION OF SPUTUM SPECIMEN:

1. Wash hands.
2. Obtain necessary items (specimen container, label, laboratory slip).
3. Identify patient and explain procedure.
4. Instruct patient on how to collect specimen.
5. Provide for patient's privacy.
6. Assist patient as needed.
7. Avoid contamination of hands, uniform and outside of specimen container
   with patient's sputum.
8. Put lid on container, wash and dry outside.
9. Put labeled container and laboratory slip in paper bag for delivery to
   laboratory.
10. Provide for patient's comfort and safety.
11. Send or take specimen to lab.
12. Chart.

VITAL SIGNS

PURPOSE: Upon completion of this unit the student will be able to obtain an accurate temperature, pulse and respiration; record the data correctly on the patient's chart; understand the production and distribution of heat in the body ; understand the relationship between the circulatory system and the pulse; describe the exchange of oxygen and carbon dioxide.

VOCABULARY:

1. axilla: the armpit.
2. centigrade: a thermometer scale used to measure heat; it is divided into 100 degrees from the freezing point of water at 0 degrees C. at the bottom and the boiling point at 100 degrees C. at the top.
3. Fahrenheit: a thermometer scale used to measure heat; the freezing point of water at 32 degrees F. and the boiling point at 212 degrees F.
4. thermometer: (medically) a glass or electric instrument used to measure body temperature.
5. a: prefix meaning without.
6. febrile: fever.
7. afebrile: without fever.
8. fever: pyrexia or elevation of temperature above normal.
9. metabolism: all the chemical reactions needed to keep the body tissues living and functioning.
10. hyper: excessively high
11. hyperpyrexia: excessively high fever.
12. hypo: below or low
13. hypopyrexia: low or low grade fever.
14. crisis: a sudden or rapid drop in fever accompanied by a marked improvemant in the patient's condition.
15. lysis: temperature falls in a zig-zag manner taking several days to reach normal and accompanied by a gradual improvement in the patient's condition.
16. intermittent fever: variation in fever where it falls to normal or below only to rise again.
17. remittent fever: variation in fever in which the temperature rises and falls but never reaches normal - if the variations are extreme it is called a hectic fever.
18. relapsing fever: temperature which falls to normal for 2-3 days and then rises again.
19. constant fever: fever remains the same for several days.
20. cardium: heart.
21. systole: period of hearts contraction.
22. diastole: period of hearts relaxation.
23. pulse: wave of distention that passes over the arterial system with each systole of the heart.
24. arrythmia: irregular pulse rhythm.
25. pulse defecit: the difference between the apical and radial pulse.
26. intermittent pulse: an arrythmia in which pulse beats are skipped.
27. tachy: prefix meaning fast.
28. tachycardia: abnormally fast heart beat - over 100 beats per minute.
29. brady: prefix meaning slow.
30. bradycardia: abnormally slow heart beat - under 60 beats per minute.
31. thready pulse: weak and feeble pulse; it can hardly be felt.
32. respiration: expansion and deflation of the lungs.
33. eu: prefix meaning good.
34. eupnea: good or normal breathing.

VOCABULARY CONTINUED:

35. hyperpnea: exaggerated rapid breathing; respiration rate above normal.
36. dys: prefix meaning difficult.
37. dyspnea: difficult breathing.
38. orthopnea: breath only in sitting position.
39. stertor: noisy breathing; snoring.
40. apnea: cessation of breathing; absence of respirations.
41. anoxia: lack or absence of oxygen supply to tissues.
42. hypoxia: low or decreased oxygen content.
43. Cheyne-Stokes respirations: a type of arrhythmic breathing; slow and shallow increasing in rapidity and depth to a maximum then gradual decrease until it stops for 10-20 seconds and then the cycle begins again.

C. BEHAVIORAL OBJECTIVES	D. ACTIVITIES
1. Describe the process of heat production, distribution and control in the body.	1. Lecture. Academic Conference. McInnes, Mary Elizabeth, The Vital Signs, The C.V. Mosby Co., (St. Louis:1970) pgs.2-6. White & Rubino, op. cit. pgs. 80-82. Seedor, op. cit. pgs. 27-64. 37; 41; Fuerst & Wolff, op. cit. pgs. 154-155. Kozier & DuGas, op. cit. pg. 168. Study Guide 4 - D.
2. List two ways to encourage the loss of heat from the body.	2. Lecture. Academic conference. Seedor, op. cit. pgs.63-64.
3. Describe what happens within the circulatory system to cause a pulse.	3. Lecture. Academic conference. White & Rubino, op. cit. pg. 84. Seedor, op. cit. pgs.136-158 McInnes. op. cit. pgs. 28-32
4. Differentiate between internal and external respiration.	4. Lecture. Academic conference. White & Rubino, op. cit. pgs 87-88. Seedor, op. cit. pgs. 176-20 McInnes, op. cit. pgs.44-48.
5. Differentiate between the Fahreheit and centigrade scales and convert a Fahrenheit reading to centigrade and vice versa.	5. Lecture. Academic conference. MATH. LAB. Seedor, op. cit. pgs. 73-85.
6. List five contraindications to taking an oral temperature.	6. Lecture. Academic Conference. Seeod, op. cit. pg. 102.

BEHAVIORAL OBJECTIVES	ACTIVITIES
7. Given a patient's chart, locate and write the recorded temperature, pulse and respiration.	7. College laboratory. Clinical laboratory. Legs. slides #34-48.
8. Identify the three factors which the nurse must consider and be aware of when counting the pulse - when counting respirations.	8. Lecture. Academic conference. Seedor, op. cit. 145-168. White & Rubino, pgs 84-85; 88. Wood, op. cit. pg. 532. Fuerst & Wolff, op. cit. pgs. 160-161; 162-163.
9. Describe the relationship between the temperature, pulse and respiration.	9. Lecture. Academic conference. Seedor, op. cit. pg. 200.
10. Demonstrate obtaining a patient's oral, axillary and rectal temperature using the appropriate thermometer and record the reading on the graphic sheet. Your reading must be within a plus 0.2 or minus 0.2 degrees of the instructor.	10. Seedor, op. cit. pgs. 85-130. Wood, op. cit. pgs. 525-531. White & Rubino, op. cit. pgs. 82-84. Fuerst & Wolff, pgs. 156-160. Legs slides #118-128. College laboratory demonstrati
11. Given an anatomical drawing of a person locate five sites where pulse evaluation can be made.	11. Lecture. Academic conference. White & Rubino, pgs. 85-87. Seedor, pg. 159. Wood, pg. 531.
12. Demonstrate counting a pulse and record a rate within two points of the rate obtained by the instructor; now take an apical pulse and record a rate within two points of the rate obtained by the instructor.	12. Seedor, pg. 152. Wood, pgs. 532-533. Academic conference. College laboratory.
13. Define an apical-radial pulse.	13. Lecture. Academic conference. Seedor, pg. 168-170.
14. Demonstrate counting respirations and record a rate within two points of the rate obtained by the instructor.	14. Seedor, pgs. 184 & 199. White & Rubino, pgs.88-89. Fuerst & Wolff, pgs.163-164. College Laboratory. Academic conference.

E. EVALUATION:
1. Objective written test based on behavioral objectives 1-9, 11, 13.
2. Measurement of skills:
   a. Satisfactory return demonstration in college lab using critical requirements on objectives 10, 12, 14.
   b. Clinical performance based on anecdotal records and critical requirements.

STUDY GUIDE 4 - D

VITAL SIGNS

Can you answer these questions?

1. What is metabolism? What happens to the rate of metabolism during physical activity? How does this affect body temperature? How is shivering related to metabolism?

2. Where and what is the hypothalamus? What effect does it have on the temperature of the body? What would happen to the body if it were injured?

3. How do blood vessels assist in the distribution and loss of heat from the body? What effect does an infectious disease have on the TPR?

4. If the body temperature becomes elevated above normal, why do the pulse and respiratory rates also increase?

5. If you are cold and wet, why does drying off make you feel warmer? If you are hot, why does fanning yourself make you feel cooler? Why do you feel cooler when you remove a blanket? Or warmer when you put one on?

6. Why does running through a sprinkler on a hot summer day cool you off? What effect does sweating have on body temperature? Why does alcohol feel cooler on the skin than water? Which remains on the skin longer and why?

7. What effect does the squeezing action or "beat" of the heart have on the blood vessels? Is the effect the same for the veins as the arteries? Why? What part of the heart beats first and what part last?

8. How do internal and external respiration differ? Which one can be observed? What stimulates us to breath? What is the route of a molecule of oxygen after it enters the nostril until it enters a body cell? Where do external and internal respiration start and stop?

CRITICAL REQUIREMENTS

VITAL SIGNS

TEMPERATURE:

Oral:

1. Wash hands.
2. Identify patient and explain procedure.
3. Obtain equipment. (thermometer and tissues)
4. Prepares thermometer for use(checks to be sure mercury is down; if above 95 degrees F. must be lowered by shaking).
5. Places thermometer under patient's tongue and instructs patient to keep his mouth closed.
6. Leaves thermometer in place for 3 to 5 minutes.
7. Removes thermometer, holding upper end between thumb and index finger.
8. Wipes thermometer with tissue from top to bottom.
9. Reads thermometer correctly.
10. Cares for equipment according to hospital policy.
11. Records according to hospital policy (on graphic chart or in TPR book).

Rectal:

1. Washes hands.
2. Identify patient and explain procedure.
3. Obtain equipment (thermometer, tissues, lubricant).
4. Places patient in Sim's position, providing for patient's privacy.
5. Check level of mercury in thermometer; if above 95 degrees F, level must be lowered by shaking.
6. Lubricate thermometer.
7. Insert thermometer about 1½ inches into the rectum.
8. Leave thermometer in position for 3-5 minutes; hold thermometer entire length of time.
9. Remove thermometer and wipe clean with tissue from top to bottom.
10. Read thermometer correctly.
11. Cares for equipment according to hospital policy.
12. Provides for comfort and safety of patient.
13. Record temperature according to hospital policy; indicate temperatur taken rectally. (R)

Axillary:

1. Wash hands.
2. Identify patient and explain procedure.
3. Obtain equipment (thermometer and tissue).
4. Check level of mercury in thermometer, if above 95 degrees F. level must be lowered by shaking.
5. Place thermometer in patient's axilla and instruct patient to keep arm in close at side.
6. Leave thermometer in place for 10 minutes.
7. Remove thermometer, holding top end between thumb and index finger.
8. Wipe thermometer with tissue from top to bottom.
9. Read thermometer correctly.
10. Care for equipment according to hospital policy.
11. Record according to hospital policy indicating axillary temperature. (A)

CRITICAL REQUIREMENTS

PULSE:(RADIAL, FEMORAL, TEMPORAL)

1. Wash hands.
2. Identify patient and explain procedure.
3. Place three middle fingers over appropriate artery.
4. Count pulsations accurately.
5. Note rate, force and rhythm.
6. Record appropriately.

PULSE: (APICAL)

1. Wash hands.
2. Identify patient and explain procedure.
3. Obtain equipment.
4. Position patient and provide for privacy.
5. Place diaphragm of stethescope over apex of heart.
6. Count heart rate accurately.
7. Note rate and rhythm.
8. Remove stethescope.
9. Provide for patient's comfort and safety.
10. Return equipment to appropriate place.
11. Record information appropriately, noting pulse was apical.

RESPIRATION:

1. Taken while hands in position for counting pulse (patient must not be aware that respirations are being counted).
2. Count accurately.
3. Note rate, rhythm and depth of respirations.
4. Record appropriately.

MODULE 4 - E

BLOOD PRESSURE

A. PURPOSE: Upon completion of this unit you will understand how blood pressure is maintained in the body, its importance as a diagnostic measure and be able to take and record an arterial blood pressure accurately.

B. VOCABULARY:

1. BP: blood pressure.
2. blood pressure: force or pressure exerted against the arterial walls during the contraction and rexlation of the ventricles.
3. systolic pressure: maximum pressure exerted when the heart contracts.
4. diastolic pressure: pressure when the heart is resting (period when blood is just coasting along - the pressure which is constantly present in the circulation).
5. pulse pressure: the difference between the systolic and diastolic pressure.
6. hypertension: abnormally high blood pressure.
7. hypotension: abnormally low blood pressure.
8. sphygmomanometer: an instrument used to measure blood pressure in the arteries.
9. stethoscope: an instrument used to transmit sounds.

C. BEHAVIORAL OBJECTIVES	D. ACTIVITIES
1. Describe what happens within the circulatory system to cause a blood pressure.	1. Lecture. Academic conference. Seedor, pg. 204; 210. McInnes, pgs. 58-64.
2. List five primary factors that maintain a blood pressure.	2. Lecture. Academic conference. Fuerst & Wolff, pg. 165. Seedor, pg. 215.
3. List five factors other than primary factors which influence the blood pressure.	3. Lecture. Academic conference. Seedor, pg. 209. Fuerst & Wolff, pg. 166. White & Rubino, pg. 91.
4. Shown pictures of blood pressure equipment or the actual equipment, identify and label (using correct spelling) each of the following: gauge, cuff, exhaust valve, mercury manometer, aneroid manometer, inflating bulb, compression bag,	4. Legs slides #129-133 Seedor, pg. 222. White & Rubino, pg. 90. McInnes, pg. 65.
5. Shown pictures of a nurse taking blood pressure readings using both aneroid and mercury manometers, list for each picture what the nurse is doing to increase and decrease accuracy of reading.	5. Legs slides # 134-139.

BEHAVIORAL OBJECTIVES	ACTIVITIES
6. Obtain and record a blood pressure reading that is within plus or minus 4 mm of pressure of a simultaneous reading made by the instructor.	6. Laboratory demonstration. "Correcting Common Errors in Blood Pressure Measurement", A.J.N., October 1965, pgs. 133-164. Fuerst & Wolff, pgs.166-168. Kozier & DuGas, pgs. 172-175. White & Rubino, pgs. 89-91. Wood, pgs. 535-539. Seedor, pgs. 222-231. McInnes, pgs. 71-82.

E. EVALUATION:
1. Objective written test based on behavioral objectives 1-5.
2. Measurement of skills:
   a. Satisfactory return demonstration in college lab using critical requirements of objective 6.
   b. Clinical performance based on anecdotal records and critical requirements.

CRITICAL REQUIREMENTS

BLOOD PRESSURE

1. Wash hands.
2. Identify patient and explain procedure.
3. Obtain necessary equipment.
4. Wipe stethoscope ear pieces and diaphragm or bell with alcohol sponge.
5. Position patient.
6. Place cuff on patient correctly and secure.
7. Palpate brachial pulse.
8. Position stethoscope.
9. Inflate cuff to minimum of 180 mm. of pressure.
10. Open valve and release pressure slowly.
11. Read systolic and diastolic pressure accurately.
12. Remove equipment from patient.
13. Provide for patient's comfort and safety.
14. Return equipment to appropriate location.
15. Record appropriately.

MODULE 4 - F

RECORDING AND REPORTING

A. PURPOSE: Upon completion of this unit the student will be able to enter an accurate written report on a patients chart of his observations of a patient situation, therapy given, patient's reaction to therapy and use charting terms that will provide a safe, clear, concise and legally acceptable account of a patient's situation.

B. VOCABULARY:
1. chart: a written record of occurences and situations pertaining to a patient.

C. BEHAVIORAL OBJECTIVES	D. ACTIVITIES
1. Identify the purposes of a patient's chart.	1. Lecture. Academic conference. Kozier & DuGas, pgs.140-141. Fuerst & Wolff, pgs. 42-43. Wood, pg. 100.
2. Differentiate between the general rules for charting and specific charting suggestions.	2. Lecture. Academic conference. Wood, pgs. 101-103. Kozier & DuGas, pgs. 141-142. Fuerst & Wolff, pgs. 42-44.
3. Explain what the following forms are used for: physicians order sheet, graphic sheet, medication sheet, nurse's notes, history and physical, progress sheet, laboratory sheet.	3. Lecture. Academic conference. Wood, pg. 101. Kozier & DuGas, pgs. 143-146. Fuerst & Wolff, pgs. 43-44.
4. Given samples of charting, identify the charting errors and then chart the information correctly.	4. Lecture. Academic conference. Bloom et. al, "Problem-Oriented Charting", A.J.N., Nov. 1971, pgs. 2144-2148. Hershey, Nathan, "Medical Record and the Nurse", A.J.N., Feb. 1963. McGuire, Rita L., "Bedside Nursing Audit", A.J.N., Oct. 1968.
5. After listening to a recorded one-minute conversation, record the content accurately.	5. Legs audio-tape "Reporting".
6. Given a list of generally used standard abbreviations used in medical orders and for recording data, write the meaning for each abbreviation.	6. Wood, pgs. 103-105. White & Rubino, pgs. 265-266. Falconer, Norman, Patterson, Gustafson, The Drug, The Nurse The Patient, W.B. Saunders Co. (Phila.: 1970) pg. 523. Kozier & DuGas, pg. 143.

BEHAVIORAL OBJECTIVES	ACTIVITIES
	6. Continued Bergersen, Krug, & Goth, Pharmacology in Nursing, The C.V.Mosby Co. (St. Louis: 1969) pgs. 74-75.
7. Using common descriptive terms, properly record information pertaining to the patient which will assure safety for the patient, hospital and nurse.	7. Lecture. Study Guide 4 - F. ***** Wood, pg. 99;106-115. Hershey, Nathan, "Patient Records and Incident Reports" A.J.N., Sept. 1969, pgs. 1931-1932. Barbata, Jensen & Patterson, Medical-Surgical Nursing, pg. 23.
8. Describe the nursing process and explain its relationship to patient assessment and a plan for nursing care.	8. Lecture, Academic conference. Barbata, Jensen, Patterson, pgs. 23-25; 25-27. Kozier & DuGas, pg. 146. Fuerst & Wolff, pgs. 49.

E. EVALUATION:
1. Objective written test based on behavioral objectives 1-7.
2. Measurement of skills:
   a. Satisfactory demonstration in college lab using critical requirements of objective 7.
   b. Clinical performance based on anecdotal records and critical requirements.

***** STUDY GUIDE 4 - F is available in the instructors office.

CRITICAL REQUIREMENTS

CHARTING

1. Record legibly. (printed or handwritten)
2. Use appropriate error corrections.
3. Spell correctly.
4. Use present tense.
5. Use standard abbreviations.
6. Record vital information in clear, concise terms which plainly describe the situation pertaining to the patient.
7. Sign all entries correctly.

SUPER-COURSE

SUPER-COURSE (SC) is a vast collection of objectives, evaluations, and resources organized by CISNE (Computerized Information System for Nursing Education).

The MATRIX is the skeleton of SUPER-COURSE:

KO	PO	AO
KE	PE	AE
KR	PR	AR

From SC, CISNE can generate many combinations:

(a) objectives

(b) evaluations: pretest, diagnostic exams, progress tests, posttests, clinical evaluation, and final exams

(c) resources

(d) modules, and

(e) CAI (Computer Assisted Learning)

The following pages give an example of the SUPER-COURSE segment from which the preceding modules were developed.

It should be obvious that many other modules on the same content and objectives could have been developed from SUPER-COURSE.

SUPER-COURSE also provides a confidential source for the pretests, posttests, progress tests, and final exams referred to in the cluster 4 modules.